UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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ART UNIT	PAPER NUMBER
3623	

NOTIFICATION DATE	DELIVERY MODE
12/26/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/699,269	WASHINGTON ET AL.
	Examiner	Art Unit
	WILLIAM V. SAINDON	3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>28 September 2008</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-124</u> is/are pending in the application.

    4a) Of the above claim(s) <u>16-24, 55-77, 89-92, 106-110, and 112-124</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-15, 25-54, 78-88, 93-105 and 111-121</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   The following NON FINAL Office Action is in response to Applicant's submission

received September 28, 2008. Claims 101-105 and 111-121 were amended. No claims

were canceled or added. Therefore, claims 1-124 are pending.

Election/Restrictions

2.   Claims 16-24, 55-77, 89-92, 106-110, and 112-124 are withdrawn from further

consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention,

there being no allowable generic or linking claim. Election was made **without** traverse

in the reply filed on September 28, 2008.

3.   Applicant is reminded that upon the cancellation of claims to a non-elected

invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one

or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by

a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

5.   **Claims 1-15, 25-54, 78-88, 93-105, and 111-121 are rejected under 35**

U.S.C. 101 because the claimed invention is directed to non-statutory subject

matter.

As to claims 1-15 and 25-54, the steps recited do not qualify as a statutory

process. In order for a method to be considered a "process" under §101, a claimed

process must either: (1) be tied to another statutory class (such as a particular

apparatus) or (2) transform underlying subject matter (such as an article or materials).

Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9

(1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972). If neither of these requirements

is met by the claim, the method is not a patent eligible process under §101 and is non-

statutory subject matter.

The claims clearly do not transform underlying subject matter as they are

directed to data manipulation. The claims are not tied to another statutory class. The

steps recited either do not require a particular apparatus (e.g. a particular computer), or

only mention a nominal recitation of a computer (e.g. data collection from a server).

Therefore, the claims are non-statutory.

As to claim 55, the "computer-accessible medium" is not one of the four

statutory categories and is construed as non-functional descriptive material in the form

of software per se. A piece of paper with printed code is computer-accessible (via a

scanner), and has executable instructions. A piece of paper with writing is not statutory.

The Examiner suggests a "computer-readable medium having tangibly stored thereon

computer-executable instructions causing a computer to perform a method comprising,"

or some similar Beauregard-style claim.

As to claims 78-85, the "data signal" is not one of the four statutory categories.

As to claims 86-88, 93-105, and 111-121, a system or apparatus is claimed, but no physical structure defining the system or apparatus is recited. The various "generators" and "collectors" are software, not hardware. Applicant is advised to add physical structure, such as processors, storage devices, etc.

Claim Rejections - 35 USC § 112

6.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7.   **Claims 1-15, 25-54, 78-88, 93-105, and 111-121 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement**. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

In claims 1-15, 25-35, 42, 43, 49-54, 78-81, 83, 86-88, 93-96, 98, 101-105, and 111-116, and 119:

Correlation has special meaning to a person of ordinary skill in the art. Correlation refers to a statistical calculation indicating the strength and direction of a linear relationship between two random variables. Applicant's specification does not specifically re-define the term from its ordinary meaning. However, Applicant does not use correlation according to its accepted meaning, and provides no written description

as to what Applicant's version of correlation is. Applicant "correlates" data between more than two random variables (e.g. claim 8), which cannot happen using the ordinary meaning of correlation. One of ordinary skill in the art would necessarily require a written description discussing what Applicant's new way to "correlate" data is, in order to apprise the person of ordinary skill what Applicant considers his invention.

In claims 36-41, 44-48, 82, 84, 85, 97, 99, 100, 117, 118, 120, and 121, the claims recite the generation of a risk profile without "correlation" of the data. There is no written description of such an embodiment in the specification. All embodiments are disclosed to require "correlation" before "generation" of the risk. One of ordinary skill in the art would not be apprised of an invention not requiring something the written description specifically requires.

8.   **Claims 1-15, 25-54, 78-88, 93-105, and 111-121 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement**. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claims 1-15, 25-35, 42, 43, 49-54, 78-81, 83, 86-88, 93-96, 98, 101-105, 111-116, and 119, Applicant re-defined the well-known term "correlating" without providing a description as to how one of ordinary skill in the art would make and/or use the invention with this undisclosed form of "correlating." It would be impossible to guess

what Applicant's actual methods are because the specification provides no guidance.

No examples are given.

In claims 36-41, 44-48, 82, 84, 85, 97, 99, 100, 117, 118, 120, and 121, Applicant

has not enabled one of ordinary skill to make and/or use the invention to generate a risk

profile without the undisclosed "correlating" procedure. No examples are given of

embodiments without the "correlating" procedure. It would be impossible for one of

ordinary skill in the art to determine how to generate a risk profile without "correlating"

without any description of a method that lacks the "correlating" step.

9.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

10.   **Claims 1-15, 25-35, 42, 43, 49-54, 78-81, 83, 86-88, 93-96, 98, 101-105, 111-**

116, and 119 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

Where applicant acts as his or her own lexicographer to specifically define a term

of a claim contrary to its ordinary meaning, the written description must clearly redefine

the claim term and set forth the uncommon definition so as to put one reasonably skilled

in the art on notice that the applicant intended to so redefine that claim term. *Process*

Control Corp. v. HydReclaim Corp., 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed.

Cir. 1999).

The term "correlate" in claims 1-15, 25-35, 42, 43, 49-54, 78-81, 83, 86-88, 93-96, 98, 101-105, and 111-116, and 119 is used by the claim to mean some undisclosed method, while the accepted meaning is "a statistical calculation indicating the strength and direction of a linear relationship between two random variables." The term is indefinite because the specification does not clearly redefine the term. Applicant's intended meaning of "correlate" cannot be determined because Applicant has provided no guidance as to its meaning. Solely for purposes of furthering prosecution, the Examiner will construe "correlate" to mean that data is gathered together.

Further:

As to claims 83 and 98 the claim recites that the "generating a risk profile" of claim 82 further comprises "generating ...from the correlated data." However, claim 82 already generated a risk profile (from uncorrelated data). It is unclear if two risk profiles are generated, or if the generation of claim 83 replaces the generation of claim 82.

11.   **Claims 36-41, 44-48, 82, 84, 85, 97, 99, 100, 117, 118, 120, and 121 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements/steps, such omission amounting to a gap between the elements/steps.** See MPEP § 2172.01. The omitted elements are the "correlating" element/step.

Further:

As to claims 38-40, the collecting process data is supposedly from "at least one manual-work-process tracking system" but no such system is found in claim 36.

Claim Rejections - 35 USC § 103

12.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

13.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

14.   Claims **1, 11-14, 25, 34-36, 42, 44-47, 78, 81-85, 93, 96-100, 111, 115-117, and

119-121 are** rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al.

(US 7,149,917) in view of Heinrich (US 2005/0114186).

        As to claim 1, Huang discloses:

        collecting infrastructure performance data; collecting process data (see col. 9,

lines 18-50, noting automatically collected data on the infrastructure error logs and

software processes availability; see also col. 3, lines 6-15; Figs. 3, 4B, 5);

correlating the infrastructure performance data and the process data (see col. 3,

lines 26-30, noting the outage data for is correlated).

Huang fails to explicitly disclose, and Heinrich discloses:

generating a risk profile from the correlated data (see Abstract, Fig. 1, noting the

determination of overall risk in a system from data gathered from individual

components; ¶ 29, noting data can be from automated tools).

It would have been obvious to a person having ordinary skill in the art at the time

of invention to modify the outage measurement system of Huang with the risk

calculation method of Heinrich in order to analyze the risk of outages to help save costs.

As to claim 11, Huang discloses:

a frequency of outages in the infrastructure performance data (see Table 2.0,

"NAF" means number of accumulated failures) and a frequency of changes in the

process data (see Table 3.0, noting that an event is a change, such as interface

shutdown), for each of the information technology resources.

Huang fails to explicitly disclose, but Heinrich discloses:

generating a risk score (see Abstract) from data.

It would have been obvious to a person having ordinary skill in the art at the time

of invention to take the collected error data from Huang and calculate a risk score as

taught in Heinrich for the purpose of identifying major potential problems.

As to claim 12, Huang discloses the infrastructure performance data further

comprises at least one measurement of performance for an information technology

resource (see Table 3.0, noting a resource) and the process data further comprises at

least one measurement of activity for the information technology resource (id., noting

event log), and

Huang fails to explicitly disclose, and Heinrich discloses:

generating a score for each of the measurements (see claim 1 step c), each

measurement being multiplied by a weighting value associated with each measurement,

yielding a plurality of scores (see claim 1 step d); and summing the plurality of scores,

yielding a risk score (see claim 1 step e).

It would have been obvious to a person having ordinary skill in the art at the time

of invention to modify that outage data collection in Huang with the risk calculations of

Heinrich in order to quantify outage risk.

As to claims 13 and 14, Huang fails to explicitly disclose, and Heinrich

discloses:

generating the score with a higher magnitude for an increasing frequency of

outages of the information technology resource as indicated in the infrastructure

performance data; and generating the score with a higher magnitude for an increasing

frequency of changes of the information technology resource as indicated in the process

data.

generating the score with a lower magnitude for a decreasing frequency of

outages of the information technology resource as indicated in the infrastructure

performance data; and generating the score with a lower magnitude for a decreasing

frequency of changes of the information technology resource as indicated in the process

data (see claim 1 step d, noting highest risk value is high, lowest risk value is low).

It would have been obvious to a person having ordinary skill in the art at the time of invention to combine the calculations of high scores meaning high risk and low scores meaning low risk in Heinrich with the data collection in Huang to assign risk scores to collected outage data that will be meaningful to a human audience.

Claims 25, 34-36, 42, 44-47, 78, 81-85, 93, 96-100, 111, 115-117, and 119-121 present limitations not patentably distinct from similar claims above, and are rejected for similar reasons.

15.   **Claims 2-10, 15, 26-33, 37-41, 43, 48, 49-54, 79, 80, 86-88, 94, 95, 101-105, 112-114, and 118 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang and Heinrich as applied above, and further in view of official notice.**

As to claim 2, Huang and Heinrich fail to explicitly disclose collecting infrastructure performance data is performed concurrently with collecting process data. However, the Examiner takes Official Notice that it is old and well known in the art to collect data concurrently with other data. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to specify that the data collection methods of Huang collected different types of data concurrently.

As to claims 3-7, Huang and Heinrich fail to explicitly disclose these particular data collection tools/methods. However, the Examiner takes Official Notice that it is old and well known to collect data using data collection tools. Applicant has admitted that such tools are old and well-known at pages 8-9. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to specify that Huang

used particular data collection tools for the purpose of using diversified collection strategies to more accurately monitor the systems.

As to claims 8-10, Huang and Heinrich fail to explicitly disclose correlating data from these particular sources. However, the Examiner takes Official Notice that it is old and well known to use relevant data in analysis. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to specify that Huang correlated particular data received for the purpose of determining outages.

As to claim 15, Huang and Heinrich fail to explicitly disclose a higher risk score is generated for information technology resources having an increasing frequency of outages. However, the Examiner takes Official Notice that it is old and well known that outages are not good. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to rate a system with poor performance low, and to incorporate this rating system into the ratings generated by Huang and Heinrich.

As to claim 26, Huang and Heinrich fail to explicitly disclose the order of data collection. However, the Examiner takes Official Notice that it is old and well known to collect one set of data before the other. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to specify that the data collection in Huang was done in a particular order.

As to claim 113, Huang discloses the data collected is in reference to organizational control of the resource (see Table 3.0, noting event 1 is in reference to a serial control object; see also rejection above for claim 8).

As to claim 114, <u>Huang</u> discloses the data collected is in reference to a common data object (<u>see</u> <u>id.</u>, noting a serial controller is a common data object; see also rejection above for claim 8).

Claims 27-33, 37-41, 43, 48, 49-54, 79, 80, 86-88, 94, 95, 101-105, 112, and 118 present limitations not patentably distinct from similar claims above, and are rejected for similar reasons.

Conclusion

16.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Herring et al. (US 7,383,191) disclose a system that predicts outages using time domain correlation.

- Reynolds et al. (US 2003/0149657) disclose a system for measuring operational risk based on technology events.

- Vasudeva (US 2004/0267691) discloses a system for monitoring performance of a domain.

- Jensen et al. (US 6,389,331) disclose a system for monitoring performance of a facility management system.

- Chang et al. (US 2004/0054618) disclose a system for software and hardware risk analysis relating to downtime cost.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM V. SAINDON whose telephone number is (571)270-3026. The examiner can normally be reached on M-F 7:30-5; alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/wvs/

/Beth V. Boswell/

Supervisory Patent Examiner, Art Unit 3623